

## Risk of parasitism in relation to nest site characteristics on great reed warbler *Acrocephalus arundinaceus orientalis* in a patchy habitat.

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The risk of cuckoo *Cuculus canorus* parasitism for great reed warbler was analysed in relation to nest site characteristics in the patchy reed beds of Nobeyama highlands in Japan, during 2004. Great reed warblers' nests were searched systematically in the reed beds and a total of 63 nests were found, most of them during nest building or egg laying stage. To predict the potential risk of being parasitized we performed a stepwise logistic regression on twelve variables related to nest structure, nest spatial situation and light environment in the nest. The parasitism rate was 33,3% (21/63) and the model obtained can explain 82% of cases of parasitism. Variables entering the model are, in order of importance, "solar irradiance in the nest (400-1000 nm)", which describes quantity of light reaching the nest, "size of nest" and "distance to the closest nest". Compared to other studies the variable "distance from nest to the closest available cuckoo perch site" does not play an significant role in our model. This might be explained due to the patchy structure of the habitat, with small reed beds areas, that always allowed short distances (<30 m) from the cuckoo vantages points to the nests. Isolated nest were more exposed to cuckoo parasitism.